

EDUCATION:

California Polytechnic State University, San Luis Obispo, California

BS/MS Aerospace Engineering (4+1)

In Major GPA: 3.28

Double Minors: Physics, Astronomy

BS Anticipated: 2014

WORK EXPERIENCE**NASA – Jet Propulsion Laboratory**

June 2013 – Present

Intern

- Integration and test intern on the Low Density Supersonic Decelerator (LDSD) project.
- Responsible for modeling both electronic and mechanical systems in Unigraphics NX and OrCAD.

Boeing

April 2012 – June 2013

Test Engineer

- Test lead for FedEx's FedCap and the DoD's ICODES Ship Planner.
- Responsible for managing and writing test cases, executing test cases, logging defects, and determining software functionality for multi-million dollar FedEx and US Navy / DoD contracts.

Cal Poly Physics Department

Summer 2012 and Summer 2013

Undergraduate Researcher

- Numerical and analytical modeling of phase transitions, chirality, and the surface electroclinic effect in uniaxial and biaxial liquid crystals using non-linear and chaotic analysis techniques.
- Numerical modeling using Matlab. Wrote code to visualize phase transitions and chirality of liquid crystals.

Instructables.com

May 2010 – July 2010

Intern

- Interned under CEO Dr. Eric Wilhelm of MIT. Instructables regularly receives 15+ million unique monthly visitors.
- Programming in Java and HTML with CSS. Public relations to potential users and contributors to the site.

National Radio Astronomy Observatory

March 2008 and March 2010

Student Researcher

- Research using computer and manual control of radio telescopes.
- Data analysis using Logger Pro and other techniques.

ENGINEERING ACTIVITIES**Cal Poly Space Environments Lab**

March 2013 – Present

Research Assistant

- Responsible for maintaining vacuum chamber equipment and for assisting with graduate projects.
- Assisted with projects in ion propulsion and spacecraft arcing.

Cal Poly, San Luis Obispo

September 2011 – September 2012

Hybrid Rocket Project

- Design, manufacturing, and testing of Cal Poly's fifth iteration of an M class hybrid rocket motor.
- Poured fuel grains, machine graphite rocket nozzles using computerized machinery. LabView data acquisition.

Cal Poly, San Luis Obispo

September 2010 – September 2012

Cal Poly Space Systems

- Development of high power solid fuel rockets from the ground up.
- Design done using SolidWorks and Rocket Simulator, parts created using mills and other machinery.
- Fabrication done by hand using fiberglass, carbon fiber, Kevlar, and other materials.

TECHNICAL SKILLS

- Matlab
- Java
- C
- Simulations
- HTML
- CSS
- LabView
- Unigraphics NX
- Solidworks
- OrCAD
- Photoshop
- Illustrator
- Non-Linear Sys.
- Space Environments
- Soldering
- Electronics
- Metalworking
- Woodworking
- Specialized experience in space environments, simulations, and non-linear systems.